

environmental contamination, including the Barnstable Airport. We agree with Schaidler et al. that these exposures may also contribute to the risk of breast cancer, although the earliest data we are aware of show no appreciable levels of volatile halogenated compounds in 1984 BWC water samples (Janik 1987). With only limited historical data available, we cannot be sure of the exact timing and geographic distribution of these other exposures. However, a very tight correlation would be necessary for these confounders to account for the observed associations with the BWPCF plume, and other exposures would have to date back to 1966.

Fortunately, groundwater sources of drinking water in this area are subject to more protections today, and we agree that ongoing monitoring of known and emerging contaminants is important to maintain water quality.

The authors declare they have no actual or potential competing financial interests.

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Importance of Particle Size-Fraction Analysis in Suspensions

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We would like to comment on the article by Cho et al. (2009), which was published in the November 2009 issue of *Environmental Health Perspectives* (EHP). We read the paper with great interest because the size-dependent effects of particulate matter are very important but have not yet been definitively clarified. In reporting the size-dependent effects of particles, it is essential to know the size distributions of the applied

particle solutions, as well as the specific particle size fractions administered.

Cho et al. (2009) did not use direct inhalation exposure, which is the most relevant exposure route for airborne particles (Oberdörster et al. 2005). The particulate matter was sampled, resuspended in methanol and saline, and administered via pharyngeal aspiration to mice (50 μ L saline containing 25 or 100 μ g particulate matter). Because of the effort required for inhalation studies with size-fractionated airborne particulate matter, the particles were collected and resuspended. However, it is regrettable that the authors did not analyze the size fraction in the suspensions. Particles react in suspensions, especially by forming aggregates, and the reactions are dependent upon the specific composition of the suspension liquid (Teeguarden et al. 2007). Therefore, we consider it a significant drawback of the study of Cho et al. (2009) that they made statements concerning particulate size effects without taking into consideration the characteristics of the particle suspension used for aspiration. This should have been clearly addressed in the "Discussion" of their article. We are surprised that the reviewers did not highlight this point.

We are interested in studies that take into account the size effects of particles, both

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Best Environmental Epidemiology Paper Award for 2009

ISEE is delighted to announce that its second annual award for the Best Environmental Epidemiology Paper has been granted to

C. Arden Pope III, Majid Ezzati, and Douglas W. Dockery
 for their paper on

Fine-Particulate Air Pollution and Life Expectancy in the United States

published in *New England Journal of Medicine*

January 22, 2009: 360:376-386

The paper makes an outstanding contribution to the knowledge of environmental epidemiology and was selected because of its quality, originality, importance and expected impact.

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environmental and engineered, and that consider both direct exposure and other modes of exposure. We hope that *EHP* will take this into consideration during the peer-review process in the future.

A.C.R.M. is owner and general manager of TTM Andreas Mayer, an emission consulting company. The remaining authors declare they have no actual or potential competing financial interests.

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Particle Size-Fraction Analysis: Gilmour et al. Respond

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We thank Müller et al. for their interest in our article (Cho et al. 2009) and concur that the secondary sizing of particulate samples initially collected with a size-selective cascade impactor and then resuspended in solution is useful information. In response to their comments, we prepared additional samples of the particulate matter (PM) in the same manner as in the toxicology study and used dynamic light scattering (Malvern Zetasizer, Model Zen 3600; Malvern Instruments Ltd, Malvern Worcestershire, UK) to determine particle size. We found that the coarse PM near road sample (collected approximately 20 m from the nearest lane of a highway) had an average diameter of 3.4 μm ; the fine particles, 1.5 μm ; and the ultrafine particles, 0.46 μm . These results were confirmed by electron microscopy of similarly collected samples (Devlin R, personal communication). Because the cut points for the sampler were 2.5–10, 0.1–2.5, and < 0.1 μm , for the coarse, fine and ultrafine particles, respectively, it appears that the ultrafine

particles did indeed coagulate to a certain degree, although they remained in a much smaller size range than the other two fractions. Despite the ≥ 4 -fold aggregation, the ultrafine particles clearly had a more prominent effect on the cardiovascular system, whereas the larger particles affected the lung. Further experimentation is required to determine if this is due solely to the particle size or to the chemistry of the material. In addition to clarifying the size of the resuspended particles, we also calculated the solubility and found that coarse, fine, and ultrafine particles from the near road sample were 35, 81, and 85% water soluble, respectively. We believe that the size, chemistry, and solubility can affect the toxicological outcome from particle exposure and agree that these features should be reported wherever practicable.

The authors declare they have no actual or potential competing financial interests.

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ERRATA

Oberdörster et al. have reported errors in their article “Nanotoxicology: An Emerging Discipline Evolving from Studies of Ultrafine Particles” (Oberdörster et al. 2005. *Environ Health Perspect* 113:823–839):

- In Table 2 (p. 825), the units for particle diameter (heading of the first column) should be “nm” instead of “ μm .”
- In Figure 8 (p. 829), the labels on the y-axis of each graph should be “Regional deposition fraction” (as stated correctly in the figure legend) instead of “Regional deposition (%)”.
- In Table 4 (p. 832) under “Localization/effect,” the effect of 400 nm polystyrene (last row) should be “No thrombus” instead of “Thrombus, late”; this is described in more detail in the Supplemental Material (<http://ehp.niehs.nih.gov/members/2005/7339/supplemental.pdf>).

The authors apologize for the errors.

In the conclusion of the article “Risk Factors for Acute Leukemia in Children: A Review” by Belson et al. [*Environ Health Perspect* 115:138–145 (2007)], benzene was incorrectly noted to be associated with the development of childhood acute lymphocytic leukemia (ALL) and acute myelogenous leukemia (AML). The authors note that although benzene is a known carcinogen associated with adult leukemia, in general, it is not associated with the development of childhood AML or ALL. Ionizing radiation is the only environmental exposure strongly associated with the development of childhood leukemia.

In the letter “Traffic-Related Air Pollution and Childhood Asthma,” published in the July issue of *EHP* (Cetta et al. 2010. *Environ Health Perspect* 118:A283–A284), Marina Camatini and Ezio Bolzacchini (Polaris Research Center, Department of Environmental Science, University of Milano Bicocca, Milan, Italy) were listed as authors. However, they have notified *EHP* that they were not informed about the letter and that their names were included without their permission. Both Bolzacchini and Camatini have requested to have their names removed; therefore, *EHP* will honor their request and remove their names from the online versions of the letter.